NATURAL RESOURCES CONSERVATION SERVICE
PACIFIC BASIN AREA
CONSERVATION PRACTICE STANDARD

WINDBREAK/SHELTERBELT RENOVATION

(Meters, Feet)
CODE 650

DEFINITION

Widening, partial replanting, releasing, removing and replacing selected trees and shrubs to improve an existing windbreak or shelterbelt.

PURPOSE

Restoring or enhancing the function of existing windbreaks or shelterbelts.

CONDITIONS WHERE PRACTICE APPLIES

In any windbreak or shelterbelt that is no longer functioning properly for the intended purpose.

CRITERIA

General Criteria Applicable to all Purposes

The following criteria will be used individually or in combination to accomplish windbreak or shelterbelt renovation:

1. Individual trees or shrubs will be identified for thinning to reduce plant competition or alter the density of the planting.
2. Pruning of trees will be used to remove diseased branches or alter the density of the planting.
3. Entire or partial rows of trees or shrubs will be identified for removal to release adjacent rows of trees or shrubs.
4. Identified rows of trees or shrubs in decline will be cut to the ground to allow sprouting (coppice) and improve density and vigor.
5. When competing herbaceous vegetation is affecting the health of the planting, the trees or shrubs will be released mechanically or chemically to improve the growth and vigor.
6. Additional rows of trees or shrubs will be added adjacent to or within an existing windbreak/shelterbelt to improve density.
7. Residual plants will be protected during the renovation.
8. Comply with applicable laws and regulations, including local Best Management Practices (BMPs).

CONSIDERATIONS

Renovation may be accomplished over a period of years.

Debris should be removed from the site and disposed of properly if the debris will cause insect, disease, fire, or operability problems.

Consider shade tolerance when selecting species for replanting within or adjacent to an existing windbreak or shelterbelt.

When rows of a windbreak or shefterbelt are merely extended in length, this is not considered renovation.

Damaging pests will be monitored and controlled.

Wildlife needs should be considered when selecting tree or shrub species.

PLANS AND SPECIFICATIONS

Specifications for this practice shall be prepared for each site. Specifications shall be recorded using approved specifications sheets, job sheets, narrative statements in the conservation plan, or other acceptable documentation.

OPERATION AND MAINTENANCE

Vegetative competition will be controlled as long as it inhibits the renewed growth and vigor of the windbreak or shelterbelt.

Supplemental water will be provided as needed.

Trees and shrubs will be protected from fire and animals.

Additional thinning, pruning, or coppice management may be needed in the future to maintain function.

The windbreak/shelterbelt will be monitored for potential damaging pests

REFERENCES

1. Windbreak Technology. Proceedings of an International Symposium on Windbreak Technology, Lincoln, Nebraska, June 2327 1986. J.R. Bradle, D.L. Hintz, J.W. Sturrock (Editors). September 1988. Elsevier Science Ltd.
2. Multipurpose Windbreaks: Design and Species for Pacific Islands. Kim M. Wilkinson and Craig R. Elevitch. 2000. Permanent Agriculture Resources. (http://www.agroforestry.com)
3. Forestry Handbook. Karl F. Wenger, Editor. 1984. Society of American Foresters.